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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/508,809	04/07/2005	Robert George Dunster	14036.50USWO	6212
23552	7590	05/04/2006	EXAMINER	
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			BOECKMANN, JASON J	
			ART UNIT	PAPER NUMBER

3752
DATE MAILED: 05/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/508,809	DUNSTER ET AL.	
	Examiner	Art Unit	
	Jason J. Boeckmann	3752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 6,8,10,11 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,7,9,12-19 and 21-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/22/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/22/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Claims 6, 8, 10, 11 and 20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 2/15/2006.

Applicant's election with traverse of the generic claims in the reply filed on 2/15/2006 is acknowledged. Examiner agrees that claims 1-3, 5, 9, 12, 13 and 14 are all generic due to applicant's arguments. However, claims 10 and 11 do not read on the species directed towards figure 3, and therefore are not generic, as discussed in the specification on page 10. Applicant argues that the reference to figures "1, 2 and 4" on line 1 of page 10 was a mistake, however, changing that reference from figures "1, 2 and 4" to "1, 2, 3 and 4" would be an addition of new matter. Hereby, claims 10 and 11 have been withdrawn as being drawn to a non-elected species. In addition, figure 3 shows no pump or any means of adjusting a pump that is referred to in claims 10 and 11.

The requirement is still deemed proper and is therefore made FINAL.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 7, 9, 12, 15-19, 21-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Zuev et al (6,223,827).

Zuev et al shows a fire explosion suppression system, comprising: a source of pressurized liquid (1), water (column 2, line 48), a source of pressurized gas (2), a mist producing means (12) connected to receive a flow of the liquid to produce a mist, mixing means (4) for mixing the mist into a flow of pressurized gas, and a control means (3) for controlling the ratio of mass flow rate of the liquid to the pressurized gas to a constant value.

Regarding claims 3 and 4, the control means includes a means (7) of pressurizing the liquid (1) in dependence of the pressure of the gas (2). With the pressurized gas being stored under pressure, the pressure reduces during flow thereof, and reduces the mass flow rate of the gas. The control means includes a means (7) for applying the pressure of the stored gas to pressurize the liquid whereby the reducing applied pressure correspondingly reduces the mass flow rate of the liquid.

Regarding claim 5 and 9, the control means includes a valve means (3) for controlling the mass flow rate and pressure of the liquid (via pipe 7).

Regarding claim 7, the valve means (3) comprises a controllable metering valve for adjusting the valve in dependence of the mass flow rate of the gas.

Regarding claim 12, the liquid extinguishing agent flow is initiated before the gas flow because the mist must be produced before the gas flow is introduced into the mixing chamber or only gas will be dispensed from the device.

Regarding claims 15-19 and 21-26, using the apparatus of Zuev et al meets the steps and methods in the claims.

Regarding claims 28 and 29, the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product in the prior art, the claim is unpatentable even though the prior product was made by a different process (see MPEP 2113).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

Art Unit: 3752

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zuev et al (6,223,827) in view of Russwurn et al (6,173,790).

Zuev et al shows all aspects of the applicant's invention as in claims 1 and 15, but does not specifically disclose that the pressurized gas is inert gas. However, Russwurn et al shows a fire-extinguishing device including pressurized gas that is inert and a liquid fire-extinguishing agent that is water. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention, under the teachings of Russwurn et al, to use inert gas in the fire suppression system of Zuev et al, in order to extinguish a fire more quickly.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bundy (4,981,178) shows a fire suppression system that mixes gas and a liquid in a mixing chamber. Sundholm (5,799,735 and 5,845,713) shows a pressurized gas and liquid fire suppression system including a mixing chamber and a means for pressurizing the liquid by the pressure of the gas.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason J. Boeckmann whose telephone number is (571) 272-2708. The examiner can normally be reached on 7:30 - 5:00 m-f, first Friday off.

Art Unit: 3752

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Scherbel can be reached on (571) 272-4919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JJB JJQ

5/1/06



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